

# FACT SHEET

September 1997

## When Siting in a Floodplain is the Only Practicable Alternative

### Introduction

Executive Order (EO) 11988, Floodplain Management, was issued by President Jimmy Carter in May, 1977. The purpose of this order is to:

- provide guidance to Federal agencies in minimizing flood impact on human safety, health and welfare,
- avoid adverse impacts associated with development of floodplains, and
- avoid support of floodplain development when practicable alternatives exist.

EO 11988 was not created to prevent ALL development of floodplain areas. It recognizes that certain projects must be located in floodplains and describes the process which must be followed in order for floodplain actions to be in compliance with regulations. This fact sheet describes the process which must be followed to comply with the provisions of EO 11988.

A common problem arises when a proposed GSA action **must** be located in a floodplain due to the nature of the project. For example, if a U.S. Mexico border crossing is along the Rio Grande River it may have to be located in a floodplain. Such situations are called "functionally dependent uses." Although such uses may require locating in a floodplain, they are not exempt from the eight-step decision making process developed by the Federal Emergency Management Agency (FEMA). This is because some floodplain locations may be less risky than others, various facility designs may be employed to help minimize risk, and there may be related structures that do not require locating in a floodplain. The FEMA eight-step process for siting in a floodplain is designed to evaluate all possible factors that lead to minimizing risk to human life and adverse impacts on the floodplain. This process should be fully integrated into the requirement of the National Environmental Policy Act (NEPA). Note that if the site is also located in a wetland, there are additional regulations under the Clean Water Act that must be followed. For more information on wetlands, please see the NEPA Call-In fact sheet titled "Wetlands." This

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### To What Actions Does EO 11988 Apply?

GSA ADM 1095.2, "Consideration of flood plains and wetlands in decisionmaking," provides guidance on implementing EO 11988. The ADM defines an Action as: "any GSA activity which involves: Acquiring, managing, and disposing of Federal lands and public buildings; providing federally undertaken, financed, or assisted construction and improvements; and conducting Federal activities and programs affecting land use." A Critical Action is an action "which should not be exposed to even a slight chance of flooding. For example, storage of irreplaceable records; storage of volatile, toxic, or water-reactive materials; construction of hospitals and schools, the occupants of which may not be sufficiently mobile to avoid loss of life and injury; and construction of utilities and emergency services which would be inoperative if flooded." The ADM also states: "All continuing activities being conducted in wetlands and floodplains shall be periodically evaluated to determine their impacts upon the wetland or floodplain."

ADM 1095.2 states it applies to the following GSA program actions.

This list is not intended to be all inclusive:

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- (1) Real property acquisition through Federal construction, purchase, or lease,
- (2) Public buildings design and construction;
- (3) Public buildings alteration,
- (4) Public buildings operation,
- (5) National strategic and critical materials stockpile management and operation, and
- (6) Disposal of any interest in surplus real property to non-Federal public or private parties.

## The Best Practicable Alternative

Section 1 of EO 11988 directs Federal agencies to "take action to reduce the risk of flood loss, to minimize the impact of floods on human safety, health and welfare, and to restore and preserve the natural and beneficial values served by floodplains in carrying out its responsibilities." The EO further states that its intent is to "avoid direct or indirect support of floodplain development wherever there is a practicable alternative."

**PRACTICABLE** - Defined in the FEMA publication, "Further Advice on Executive Order 11988 Floodplain Management," as capable of being done within existing constraints. The test of what is practicable depends upon the situation and includes consideration of pertinent factors such as environment, cost or technology.

The GSA ADM 1095.2, states that practicable alternatives may include:

- a) carrying out the proposed action at a location outside the 100-year floodplain (called the base floodplain) or wetland (alternative sites),
- b) using other means which accomplish the purpose of the proposed action (alternative actions), and
- c) taking no action.

Where the only practicable alternative is to site in a floodplain, specific actions must be taken to comply with EO 11988. *These actions do not constitute a waiver from compliance with EO 11988, but are a step-by-step process to be followed by the appropriate administrators.* The process has been outlined in the FEMA guidance document "Further advice on EO 11988 Floodplain Management," and the GSA ADM 1095.2, and contains eight steps, as follows:

**Step 1 Determine if a proposed action is in a base floodplain.** To satisfy Step 1 of the eight-step process, a floodplain determination must be made. To determine if a proposed action is in a floodplain, Flood Insurance Rate Maps (FIRMs) can be ordered for a charge from FEMA's Map Service Center (800) 358-9616. Generally, the first step is to order an index map of a particular city or town. The index map provides a breakdown of the city into smaller units called panels. Using the index map, it is possible to determine which panel maps will be needed to obtain the desired information. Once the panel maps are obtained, the flood zone designations can be determined by reading the map. District Army Corps of Engineers offices also have floodplain maps available for viewing.

**Step 2 Provide for public review.** Step 2 of the process requires a public review of the proposed floodplain action. Public review should begin as soon as it has been determined that an action is proposed in a floodplain. The public review process should be designed to (1) inform people who are interested in or affected by the proposed action, (2) disseminate information about floodplains and the risks of development, and (3) to inform people who may be at continued or greater risk because of the action. EO 11988 also requires agencies to publicly circulate a notice of explanation of why an action must be located in a floodplain. Each agency determines the information that will be provided for public review based on an evaluation of the magnitude and potential impact of the action, and potential for controversy. Agencies also determine the vehicle for providing notice and the length of the comment period.

This information is provided by the "responsible GSA official." The "responsible GSA official" is the Regional Administrator, for actions involving lease acquisitions to fulfill Federal space requirements and regional disposal of real property; and the Commissioner, Public Buildings Service for all other actions.

**Step 3 Identify and evaluate practicable alternatives to locating in the base floodplain.** Step 3 requires that practicable alternatives to the floodplain action be found and considered. Alternatives outside the floodplain are favorable, but there may be other sites which have less risk associated with them inside the same floodplain. These less risky sites should be considered as alternatives if no others outside the floodplain exist. It must also be shown that the floodplain location itself for the proposed action is practicable. This can only be done if the need to site in a floodplain is clearly demonstrated.

**Step 4 Identify the impacts of the proposed action.** Step 4 requires that the impacts of the proposed action be identified. There are three types of impacts that must be assessed:

- ① positive or negative;
- ② concentrated or dispersed; and
- ③ short- or long-term.

All direct, indirect, and cumulative impacts of the action on the floodplain and surrounding area are to be identified. A direct impact may be increased erosion around the site as a result of increased runoff from impervious surfaces. This could indirectly decrease the recreational and economic value of downstream water as it becomes polluted with sediment from surface runoff. The siting of a single building may seem like a small change in a floodplain. However, when its impact is combined with the impacts caused when other services and buildings begin to locate in the floodplain in support of the proposed action, the cumulative impacts can decrease the natural floodplain value and increase risks to humans.

**Step 5 Minimize threats to life, property and to natural and beneficial floodplain values, and restore and preserve natural and beneficial floodplain values.** Step 5 requires that the agency minimize threats to life and property and to natural and beneficial floodplain values. The agency must also show how it will restore and preserve natural and beneficial floodplain values that may be negatively affected by the proposed action. Mitigation of adverse impacts may include floodproof design, and locating structures which are not dependent on the floodplain to other locations outside the floodplain. Design must also be used which minimizes the adverse impacts and flood damages on the floodplain. The ADM 1095.2 lists a five-step process to follow in accomplishing the task of minimizing impacts. A summary of this list in Chapter 2, Paragraph f. of ADM 1095.2 includes:

- ① All practicable mitigating measures identified in an Environmental Impact Statement (EIS) or Environmental Assessment (EA) shall be adopted.
- ② At a minimum, the action must meet the standards and criteria, and be consistent with the intent of, the National Flood Insurance Program (Title 29 Code of Federal Regulations, Part 1909), even though GSA actions are not insured under this program.

- ③ All practicable means to floodproof structures shall be taken. Elevation of structures above the 500-year base flood level for critical actions shall be done whenever practicable instead of filling in land. Elevation shall be "accomplished by the use of open works, for example, columns, walls, piles or piers."
- ④ Part 11, step 5 of the Water Resources Council Guidelines shall be referenced for additional impact-minimizing guidance.
- ⑤ Where a wetland is also involved, the action shall be designed or modified using all practicable measures consistent with the intent of NEPA and the Wetlands Order to minimize harm to the wetland.

**Step 6 Reevaluate alternatives.** Step 6 requires that alternatives to the proposed floodplain site be reevaluated in light of any new information which has become available. This includes the No Action Alternative and other siting alternatives which may be less risky or have less of an adverse impact on the floodplain. A recommendation is then made to proceed with the proposed action, a limitation or portion of any one of the proposed actions, or no action.

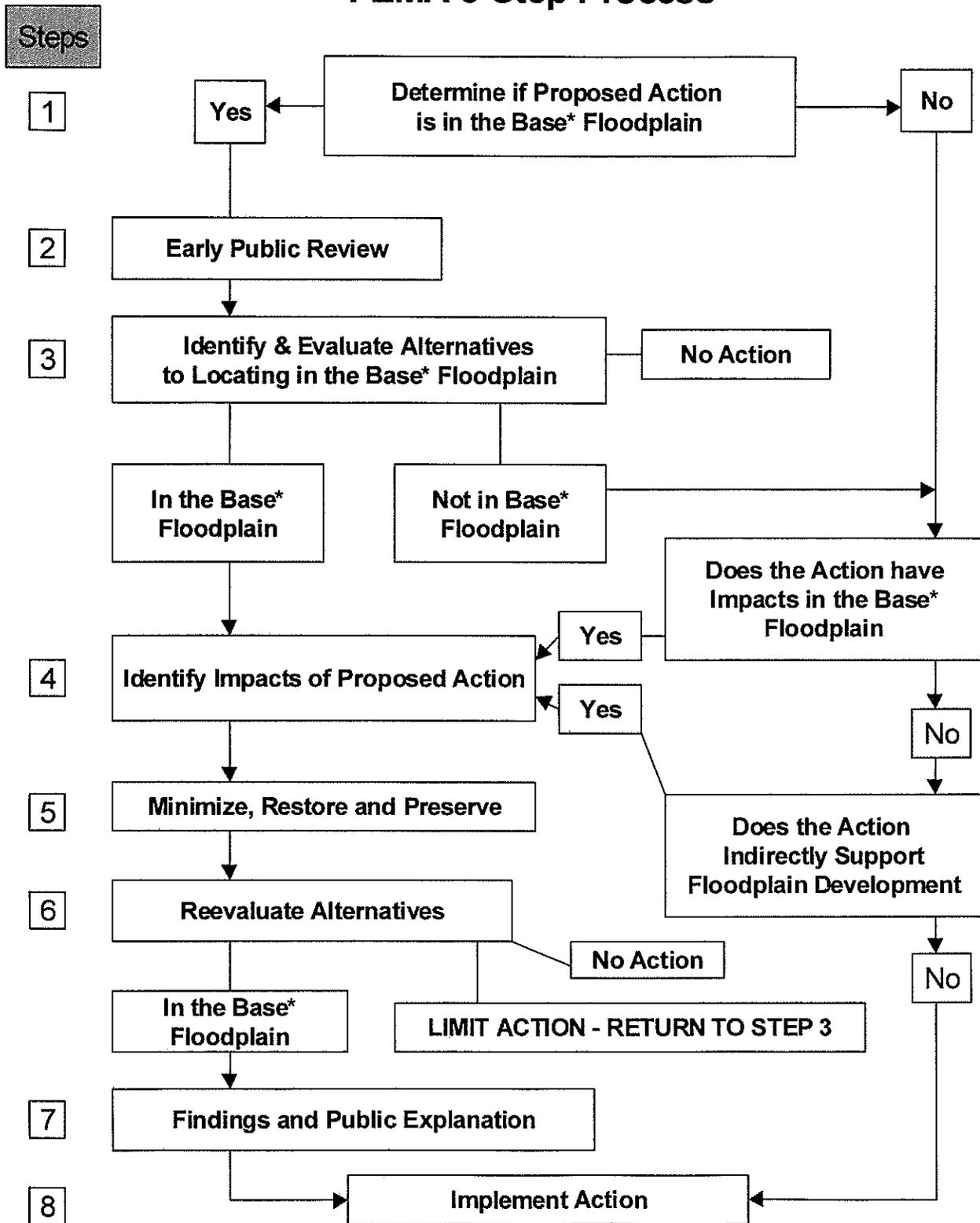
**Step 7 Issue findings and a public explanation.** Step 7 requires issuing findings and a public explanation. Properly prepared EISs and EAs can fulfill this requirement if the following information is included in addition to the normal requirements for NEPA documents:

1. a statement stating that the action will comply with state and local flood protection standards; and
2. a map or information about the availability of a map showing the location of the action.

All NEPA documents prepared should be made publicly available according to Title 40 Code of Federal Regulations Part 1506.6, "Public Involvement".

**Step 8 Implement the action.** Implementing the action is the final step in the process of siting activity in a floodplain when this is the only practicable alternative. Once the plan has been selected for implementation, no deviations should be made from it unless the above planning process is repeated.

# FEMA 8-Step Process



\*For Critical Actions Substitute "500 Year" for "Base"

# Proposed Action Involving a Federal Courthouse Expansion in a 500-year Floodplain

The following scenario of a hypothetical GSA Federal Courthouse expansion is presented as an example of an action subject to EO 11988. This particular scenario is also subject to the considerations of EO 12072, "Federal Space Management," and EO 13006, "Locating Federal Facilities on Historic Properties in Nation's Central Cities." In the following example GSA follows the 8-step process to comply with EO 11988 and allow the siting of a facility in a floodplain. This process is fully integrated with the requirements of NEPA.

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## Scenario

GSA must provide additional courthouse space in River City, Louisiana. The existing Federal Courthouse is within the Central Business Area (CBA), and listed on the National Register of Historic Places (National Register). River City has offered the cleared site adjacent to the courthouse free of charge for expansion of the existing courthouse; however, the site lies within the 500-year floodplain. GSA expressed an interest in the site provided it could be transferred without cost to the Federal Government and delivered free of all environmental concerns.

## Solution

**Step 1 Determine if a proposed action is in the floodplain.** The responsible GSA official made this determination based on examination of the appropriate FIRM, which included the proposed courthouse expansion site. In this case, consultation with the FIRM indicated the site is wholly within the 500-year floodplain. EO 11988 applies to development in the 100-year floodplain as well as "critical actions" in the 500-year floodplain. The function of the U.S. Courts is considered a critical action; therefore, the expansion of the existing Federal Courthouse is subject to the requirements of EO 11988.

**Step 2 Early public review.** The public notice is the primary method of advising all interested parties of the proposed activity and of soliciting comments and information necessary to evaluate the probable impact on the public interest. The responsible GSA official (Regional Administrator) provided information about the action to those individuals and groups who normally receive EISs. This information was also provided to groups who have a specific interest in floodplain management. The responsible official also held a public hearing due to the

degree of public interest surrounding the expansion project, and the fact that the courthouse is located in the River City CBA. Public hearings are held when the responsible GSA official deems it beneficial to the public review process.

**Step 3 Identifying and evaluate practicable alternatives to locating in the floodplain.** In compliance with EO 11988, decision makers should avoid, to the extent practicable, long and short term significant adverse impacts associated with the occupancy of floodplains, as well as the direct and indirect support of floodplain development whenever there is a practicable alternative. The decision maker should avoid authorizing floodplain developments whenever practicable alternatives exist outside the floodplain. The responsible GSA official considered three alternatives to expansion of the existing courthouse.

First GSA considered locating only additional program facilities outside the 500-year floodplain. However, this action would split the operation of the courts, thus reducing the court's efficiency and causing unnecessary duplication of effort and expense. Further, moving the expansion building outside the 500-year floodplain would also remove it from the CBA. EO 12072 directs Federal agencies to give first consideration to CBAs when meeting Federal space needs except where it is otherwise prohibited.

GSA next considered abandoning the existing courthouse and relocating the entire facility to a larger site that would accommodate the complete operation. Again, it was found that the alternative would remove the facility from the CBA. Additionally, because the existing courthouse is on the National Register, the action would not support the intent of EO 13006. EO 13006 directs the Federal Government to "utilize and maintain, wherever operationally appropriate and economically prudent, historic properties and districts, es-

pecially those located in our central cities." Federal agencies are directed to give first consideration to historic properties within historic districts when locating Federal facilities. "If no such property is suitable, then Federal agencies shall consider other developed or undeveloped sites within historic districts."

GSA considered taking no action but the need for additional courthouse space in River City had been clearly demonstrated. The escalation of project scope and expense driven by expanded replacement facilities was deemed neither operationally appropriate nor economically prudent. Relocating the Federal Courts outside of the civic center was viewed unfavorably by the Federal Judges.

**Step 4 Identify and evaluate impacts of the proposal.** The responsible GSA official considered the economic, environmental, and other pertinent factors of the proposed courthouse expansion. The decision whether to expand the existing building on to the site offered by River City was based on an evaluation of the probable impact, including cumulative impacts, of the proposed expansion. This included both direct and indirect impacts the proposed expansion had on the floodplain. The benefits, which reasonably may be expected to accrue from the expansion, must be balanced against its reasonably foreseeable detriments. The benefits of expanding the existing courthouse include compliance with EO 12072 and 13006, ensuring jobs in the River City CBA, and providing efficiency of court operations. Although the courthouse expansion will cause only minor changes to the floodplain, the cumulative impact of this and other potential changes, including the increased demand for other services in the area, may result in an increase in flood damages, degradation of floodplain values, and increased flood risks to upstream and downstream activities.

**Step 5 Minimize, restore, and preserve.** For those activities which must occur in or impact floodplains, the decision maker shall insure to the maximum extent practicable that the impacts of potential flooding on human health, safety, and welfare are minimized and the natural beneficial values served by floodplains are restored and preserved. To this end, GSA entered into consultation with River City. GSA agreed to elevate the new building above the 500 year floodplain level. River City agreed to stormwater infrastructure improvements within the effected area and to regrade the proposed site to take advantage of said improvements. River City agreed to dedicate municipal funds to this effort in a Memorandum of Agreement.

**Step 6 Reevaluate alternatives.** GSA considered all comments received in response to the public notice and hearing, as well as comments received from Federal, State, and local agencies. GSA reevaluated the alternatives including the "no action" alternative, and recommended proceeding with expansion of the existing courthouse after River City's completion of the site alterations recommended by FEMA.

**Step 7 Findings and public explanation.** A decision to proceed with the action can not be made before NEPA documentation is complete. Upon completion of an EIS, the Regional Administrator decided to proceed with expansion of the existing courthouse onto the adjacent site provided by River City. The responsible official prepared a public notice which included an explanation of why the action was proposed in the 500-year floodplain, a statement indicating that the action conforms to State and local floodplain standards, a list of alternatives considered, and a location map. The public notice was distributed in accordance with ADM 1095.2.

**Step 8 Implementation.** Upon completion of the FEMA 8-step process in accordance with ADM 1095.2, and upon completion of the NEPA process, the existing courthouse was expanded on to the adjacent site.

## Memorandum Allowing Blanket Floodplain Waivers has Expired

*Floodplain waivers are no longer a part of GSA policy concerning actions in floodplains. The GSA memorandum, "Floodplain waivers: Proper documentation and processing procedures and GSA policy on Blanket Waivers," was not reissued and has expired. Since the document expired, floodplain waivers are no longer accepted practice in GSA. Each GSA action involving floodplains must now be reviewed on a case-by-case basis. The proper review process is*

*outlined above and follows the guidance in EO 11988 and FEMA document, "Further Advice on EO 11988, Floodplain Management." More information on this subject is contained in NEPA Call-In Technical Inquiry 07a, "Blanket Floodplain Waiver," available on the NEPA Call-In Home Page, [www.gsa.gov/pbs/pt/call-in/nepa.htm](http://www.gsa.gov/pbs/pt/call-in/nepa.htm), or by calling NEPA Call-In, (202) 208-6228.*

## References

"Consideration of Flood Plains and Wetlands in Decisionmaking," GSA ADM 1095.2. October, 31, 1983.

EO 11988, "Floodplain Management," May 24, 1977.

EO 13006, "Locating Federal Facilities on Historic Properties in Our Nation's Central Cities," May 21, 1996.

"Further Advise on Executive Order 11988 Floodplain Management," FEMA, undated.

"Mandatory Purchase of Flood Insurance Guidelines," FEMA, October 1989.

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